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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,713	05/03/2001	Doug Grumann	10002681-1	7924

22879 7590 07/23/2008

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EXAMINER	
AILES, BENJAMIN A	
ART UNIT	**PAPER NUMBER**
2142	

NOTIFICATION DATE	DELIVERY MODE
07/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/848,713	GRUMANN ET AL.	
	Examiner	Art Unit	
	BENJAMIN AILES	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8,11,12,14-22 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-8,11,12,14-22 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/7/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 08 April 2008, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

2. Claims 1, 2, 4-8, 11, 12, 14-22 and 24 remain pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11, 12 and 14-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 11 recites the limitation "the generic output" in line 6. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the claim will be interpreted so that “the generic output” refers to the “one or more generic health metrics” in lines 5-6 of the claim. Appropriate correction is required.

5. Claims 12 and 14-17 are rejected based on their dependency on claim 11.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, 4, 5, 6, 8, 11, 12, 14, 17-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Systems Management: Application Response Measurement (ARM) API” (The Open Group), hereinafter referred to as “ARM API”, in view of Leymann et al. (US 6,633,908 B1), hereinafter referred to as Leymann.

9. Regarding claim 1, ARM API teaches a method for dynamically determining the health of a service resident on a host machine (page 3, figure 1-1), comprising:

collecting service performance information (p. 3, fig. 1-1, measurement agent) from the resident service (p. 3, fig. 1-1, client, server end systems), wherein the collected service information relates to a plurality of performance metrics (fig. 1-1, monitor application response); and

wherein the output comprises a plurality of service health metrics, and the plurality of performance metrics to provide one or more of the plurality of service health metrics, wherein the plurality of service health metrics comprises availability, capacity, throughput, service time, queue length, utilization, service level violations, and user satisfaction (fig. 1-1, monitor application response).

ARM API teaches in (fig. 1-1, monitor application response) the collection of service performance information by an ARM API wherein the output is one of a scriptable interface and application programming interface (fig. 1-1, use of ARM API) and useable by different performance monitoring tools (fig. 1-1, measurement agent) but does not explicitly recite the translation of the performance information into a generic output. However, in related art, Leymann teaches these features. Leymann teaches the utilization of an application response measurement API (fig. 1, 106) in communication with an API sub-agent (fig. 1, 107) over a network wherein an agent is utilized for data handling and is deemed generic in order to be independent from a specific application and therefore the data is available for all applications requesting the data (col. 8, ll. 3-14). In view of Leymann, it is therefore deemed that it would have been

obvious to one of ordinary skill in the art to implement the ARM API to translate the collected service performance information in to a generic output. One of ordinary skill in the art would have been motivated to incorporate the teachings of Leymann with ARM API in order to implement independence from a specific application and make the data available for a wide range of calling applications (Leymann, col. 8, ll. 9-13).

10. Regarding claim 2, ARM API and Leymann teach the method wherein the host machine comprises one or more components, further comprising:

collecting external performance information from one or more of the one or more components (ARM API, fig. 1-1, monitor application response);

translating the collected external performance information (Leymann, col. 8, ll. 9-13); and

combining the translated external performance information and the translated service performance information to provide the generic output (Leymann, col. 8, ll. 9-13).

11. Regarding claim 4, ARM API and Leymann teach the method further comprising accessing the generic output to read the health of the service (Leymann, col. 8, ll. 9-13).

12. Regarding claim 5, ARM API and Leymann teach the method wherein the collecting step comprises reading performance information provided by the service (ARM API, fig. 1-1, monitor application response).

13. Regarding claim 6, ARM API and Leymann teach the method wherein the collecting step comprises deriving performance information from the service (ARM API, fig. 1-1, monitor application response).

14. Regarding claim 8, ARM API and Leymann teach the method wherein the deriving step comprises using a probe program to read the performance information (Leymann, col. 8, ll. 9-13, data read by independent components).

15. Regarding claim 11, ARM API teaches an apparatus that determines a health of a service resident on a host machine, comprising:

a data collection engine (p. 3, fig. 1-1, measurement agent) that collects service health information (fig. 1-1, monitor application response);

wherein the collected service health information relates to a plurality of performance metrics, the plurality of performance metrics to provide one or more of the plurality of service health metrics, wherein the plurality of service health metrics comprises availability, capacity, throughput, service time, queue length, utilization, service level violations, and user satisfaction (fig. 1-1, monitor application response).

ARM API teaches in (fig. 1-1, monitor application response) the collection of service performance information by an ARM API wherein the output is one of a scriptable interface and application programming interface (fig. 1-1, use of ARM API) and useable by different performance monitoring tools (fig. 1-1, measurement agent) but does not explicitly recite the translation of the data in a health generation algorithm providing one or more generic health metrics. However, in related art, Leymann teaches these features. Leymann teaches the utilization of an application response measurement API (fig. 1, 106) in communication with an API sub-agent (fig. 1, 107) over a network wherein an agent is utilized for data handling and is deemed generic in order to be independent from a specific application and therefore the data is available

for all applications requesting the data (col. 8, ll. 3-14). In view of Leymann, it is therefore deemed that it would have been obvious to one of ordinary skill in the art to implement the ARM API to translate the collected service performance information in to a generic output. One of ordinary skill in the art would have been motivated to incorporate the teachings of Leymann with ARM API in order to implement independence from a specific application and make the data available for a wide range of calling applications (Leymann, col. 8, ll. 9-13).

16. Regarding claim 12, ARM API and Leymann teach the apparatus wherein the host machine comprises one or more external components, wherein the data collection engine collects external performance information from one or more external components (ARM API, fig. 1-1, monitor application response) and wherein the data analysis engine translates the collected external information using the health generation algorithm to provide the one or more generic health metrics (Leymann, col. 8, ll. 3-14).

17. Regarding claim 14, ARM API and Leymann teach the apparatus wherein the data collection engine, comprises:

a data query module that reads performance information from the service (ARM API, fig. 1-1, measurement agent); and

a data derivation module that derives performance information from the service (ARM API, fig. 1-1, monitor application response).

18. Regarding claim 17, ARM API and Leymann teach the apparatus further comprising an interval control engine that receives the service health information at a

first time interval and provides an output having a second time interval different from the first time interval (Leymann, col. 8, ll. 3-7).

19. Regarding claim 18, ARM API teaches an apparatus that determines a health of a service resident on a host machine, comprising:

a data collection engine (p. 3, fig. 1-1, measurement agent) that collects service health information (fig. 1-1, monitor application response);

wherein the collected service health information relates to a plurality of performance metrics, the plurality of performance metrics to provide one or more of the plurality of service health metrics, wherein the plurality of service health metrics comprises availability, capacity, throughput, service time, queue length, utilization, service level violations, and user satisfaction (fig. 1-1, monitor application response).

ARM API teaches in (fig. 1-1, monitor application response) the collection of service performance information by an ARM API wherein the output is one of a scriptable interface and application programming interface (fig. 1-1, use of ARM API) and useable by different performance monitoring tools (fig. 1-1, measurement agent) but does not explicitly recite the translation of the data in a health generation algorithm providing one or more generic health metrics. However, in related art, Leymann teaches these features. Leymann teaches the utilization of an application response measurement API (fig. 1, 106) in communication with an API sub-agent (fig. 1, 107) over a network wherein an agent is utilized for data handling and is deemed generic in order to be independent from a specific application and therefore the data is available for all applications requesting the data (col. 8, ll. 3-14). In view of Leymann, it is

therefore deemed that it would have been obvious to one of ordinary skill in the art to implement the ARM API to translate the collected service performance information in to a generic output. One of ordinary skill in the art would have been motivated to incorporate the teachings of Leymann with ARM API in order to implement independence from a specific application and make the data available for a wide range of calling applications (Leymann, col. 8, ll. 9-13).

20. Regarding claim 19, ARM API and Leymann teach the method wherein the step of collecting the service performance information comprises reading first service performance parameters, and wherein the step of collecting the external performance information comprises reading first external performance parameters and deriving second external performance parameters (ARM API, fig. 1-1, monitor application response).

21. Regarding claim 20, ARM API and Leymann teach the method further comprising collecting the service performance information on a first time interval and adjusting the first time interval to provide the generic service health output at a second time interval (Leymann, col. 8, ll. 3-7).

22. Regarding claim 21, ARM API teaches an apparatus that determines a health of a service, wherein the service operates on a host computer (page 3, figure 1-1), comprising:

a collection module that receives performance information related to the service (p. 3, fig. 1-1, measurement agent); and

wherein the output comprises a plurality of service health metrics, and the plurality of performance metrics to provide one or more of the plurality of service health metrics, wherein the plurality of service health metrics comprises availability, capacity, throughput, service time, queue length, utilization, service level violations, and user satisfaction (fig. 1-1, monitor application response).

ARM API teaches in (fig. 1-1, monitor application response) the collection of service performance information by an ARM API wherein the output is one of a scriptable interface and application programming interface (fig. 1-1, use of ARM API) and useable by different performance monitoring tools (fig. 1-1, measurement agent) but does not explicitly recite the translation of the performance information into a generic output. However, in related art, Leymann teaches these features. Leymann teaches the utilization of an application response measurement API (fig. 1, 106) in communication with an API sub-agent (fig. 1, 107) over a network wherein an agent is utilized for data handling and is deemed generic in order to be independent from a specific application and therefore the data is available for all applications requesting the data (col. 8, ll. 3-14). In view of Leymann, it is therefore deemed that it would have been obvious to one of ordinary skill in the art to implement the ARM API to translate the collected service performance information in to a generic output. One of ordinary skill in the art would have been motivated to incorporate the teachings of Leymann with ARM API in order to implement independence from a specific application and make the data available for a wide range of calling applications (Leymann, col. 8, ll. 9-13).

23. Regarding claim 22, ARM API and Leymann teach the apparatus wherein the collection module receives external performance information from one or more external services coupled to the host computer and receives internal performance information related to operation of the service on the host computer (ARM API, fig. 1-1, monitor application response).

24. Regarding claim 24, ARM API and Leymann teach the apparatus wherein the generic health metrics is one of a scriptable interface and an application programming interface (ARM API, use of API for response measurement).

25. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over ARM API and Leymann in view of Chappelle (US 5,949,976).

26. Regarding claim 7, ARM API and Leymann do not explicitly teach of using a wrapper program. Chappelle teaches about using a wrapper program (performance monitoring and graphing tool) to read the performance information (col. 3, ll. 29-32). The examiner is interpreting wrapper program as any program that is used as an interface program because this gives the broadest reasonable interpretation. In ARM API's specification, the performance forecasting system communicates with one or more monitoring system (fig. 1-1, enterprise management solutions). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize the teaching of Chappelle in regards to using a wrapper program because it would have allowed the performance forecasting system to read the information supplied by various monitoring systems regardless of the components particular

infrastructure. One of ordinary skill in the art would have been motivated because this modification would result in a more versatile system as outlined above.

27. Regarding claim 15, ARM API and Leymann do not explicitly teach of using a wrapper program. Chappelle teaches about using a wrapper program (performance monitoring and graphing tool) to read the performance information (col. 3, ll. 29-32). The examiner is interpreting wrapper program as any program that is used as an interface program because this gives the broadest reasonable interpretation. In ARM API's specification, the performance forecasting system communicates with one or more monitoring system (fig. 1-1, enterprise management solutions). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize the teaching of Chappelle in regards to using a wrapper program because it would have allowed the performance forecasting system to read the information supplied by various monitoring systems regardless of the components particular infrastructure. One of ordinary skill in the art would have been motivated because this modification would result in a more versatile system as outlined above.

28. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over ARM API and Leymann in view of Walrand et al. (US 6,647,413), hereinafter referred to as Warland.

29. Regarding claim 16, ARM API and Leymann do not explicitly teach of a weighting scheme that weights one or more performance information parameters; a summation scheme that combines one or more performance information parameters; and a averaging scheme that averages collected service health information for a service

health metric. However, Walrand teaches on these aspects. Walrand teaches about a summation scheme that combines one or more performance information parameters (col. 7, ll. 32-33) and an averaging scheme that averages collected service health information for a service health metric (col. 7, ll. 55-57). In HPCN Walrand teaches of a weighting scheme that allocates different level of importance to different parameters (p. 2). One objective of Walrand invention is to optimize the network performance (col. 2, ll. 53-54). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize the above mentioned features of Walrand's into ARM API and Leymann because adding these features to ARM API and Leymann would allow focus on specific parameters (using the weighting scheme) and give information regarding the overall performance of the network system (using the summation and averaging schemes). These added features would allow ARM API and Leymann to provide a healthy network and more effectively predict failure of registered computing devices (col. 2, ll. 25-34) resulting in a more efficient performance forecasting system. It is for this reason that one of ordinary skill in the art at the time of invention would have been motivated to make the above-mentioned modifications.

Response to Arguments

30. Applicant's arguments, see Appeal Brief (pp. 10-13), filed 08 April 2008, with respect to the rejection(s) of claim(s) claims 1, 2, 4-6, 8, 11, 12, 14, 15, 17-22 and 24 under 35 U.S.C. 103(a) as being unpatentable over Helsper et al. (US 6,876,988 B2), Scarpelli et al. (US 6,816,898 B1) and Goodman et al. (US 7,020,697 B1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of ARM API and Leymann as set forth above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Ailes whose telephone number is (571)272-3899. The examiner can normally be reached Monday-Friday, 5:30-8:30AM, 1:00-6:00PM, IFP Hoteling schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BAA

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2142